



A System at Risk

The Economics of Transportation

ITS World Congress, 2005



Essence of the Issue

- Direct relationship between transportation and economic vitality
- The highway is the primary contributor to economic effect
- Crisis is coming
- Why it is occurring
- Prescription



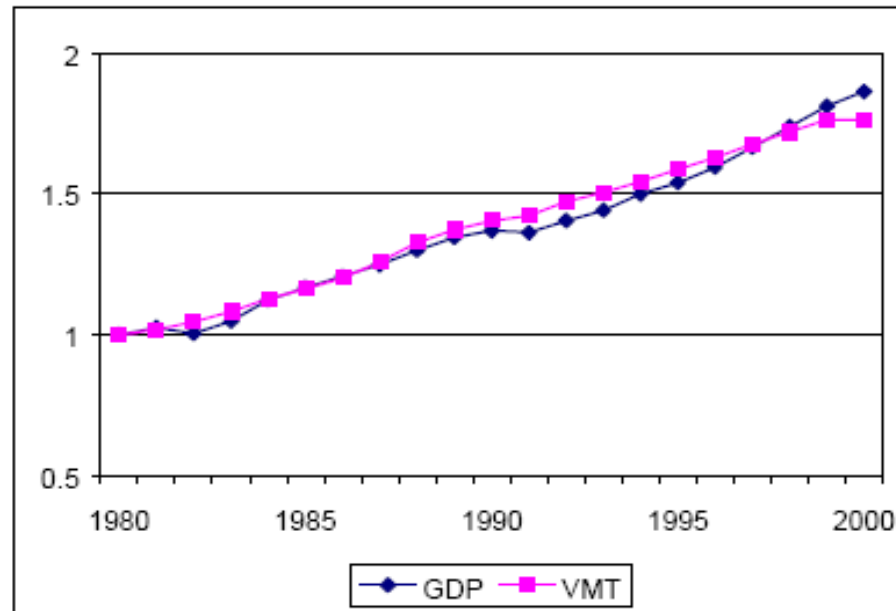
Transportation and the Economy

- Research abounds
- TRB, Universities, AASHTO, USDOT
- National Research Council
 - 10% travel time reduction = 2.5% reduction in cost
 - Chicago - \$980 million annually
 - Philadelphia – \$240 million annually
 - Imagine the U.S.



Graph GDP and VMT

Chart 2. Comparison of U.S. Gross Domestic Product and Vehicle (adjusted for inflation) and Vehicle Miles of Travel Growth 1980 to 2000, 1=100 percent of 1980 total



Source: TRIP analysis of U.S. Departments of Transportation and Commerce data



Highway Economic Impact Goods Movement



- 87% value of all goods shipped in the U.S. are by truck
- 74% of the tonnage
- 1993-1997 – 20.6% tonnage growth
- NAFTA
- Deregulation
- Just-in-Time retail and manufacturing inventory



Highway Economic Impact Automobile Travel



- 1.1 vehicles per licensed driver
- 12.4 % passenger trips by mass transit 1960, today 4%
- Personal vehicle ownership 50% higher than western Europe
- Public transit less than 2% in urban areas
- Mystique of the automobile





Texas Urban Mobility Study

- 75 urban areas 1982-2000
- New York down to 100,00
- More congestion, longer period of time, over a larger portion of the system
- Annual delay per traveler grew from 16 hrs. to 62 hrs.
- To keep congestion from growing 1999-2000 need 1780 new lane miles of highway



Texas Urban Mobility Study Cost of Congestion



- Average of 6.2 million more trips per day between 1999 and 2000
- \$67.5 billion annually
- 3.6 billion hours of delay
- 5.7 billion gallons of gasoline wasted



Prescription

- Fundamental changes are necessary
- Focus on arterial highways
- Create a connection between price and use
 - Gas tax surrogate, need direct user fee
- Rearrange public and private sector relationships
- Apply technology that exists today
- Use private capital

Political Will

- Election cycle
 - Desire to identify a silver bullet
 - Avoid taxation or appearance of removing “free” nature of arterials
- “cake and eat it too”
- Policy control at the federal level
- Earmarking – “bringing home the bacon”

Summary

- There is a strong relationship between transportation, especially highways, and economic vitality
- Crisis is coming soon
- Prescriptions exist
- Requires political will